



STATE OF MARYLAND

DMMH

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September 15, 2009

Public Health & Emergency Preparedness Bulletin: # 2009:36 Reporting for the week ending 09/12/09 (MMWR Week #36)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)

Maryland: Yellow (ELEVATED)

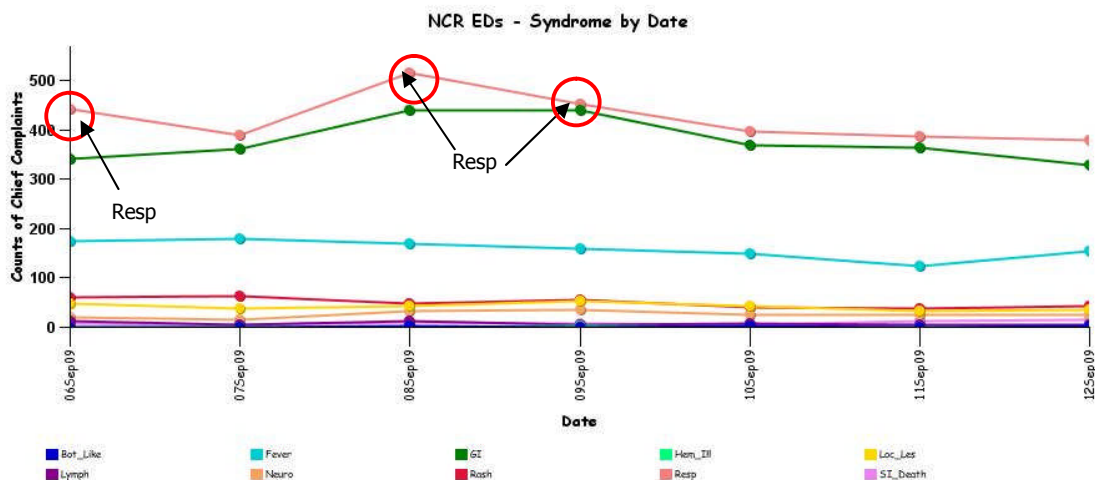
SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled.

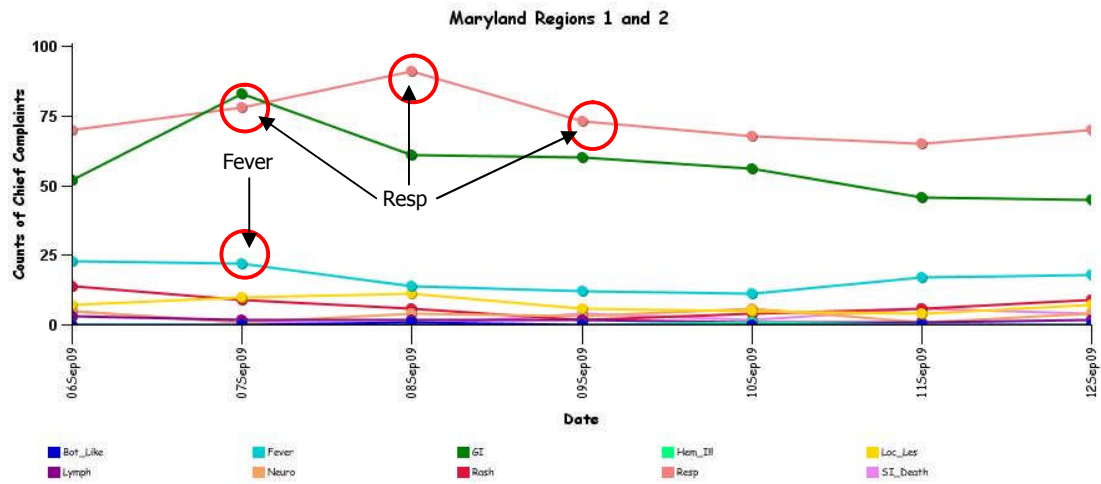
Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

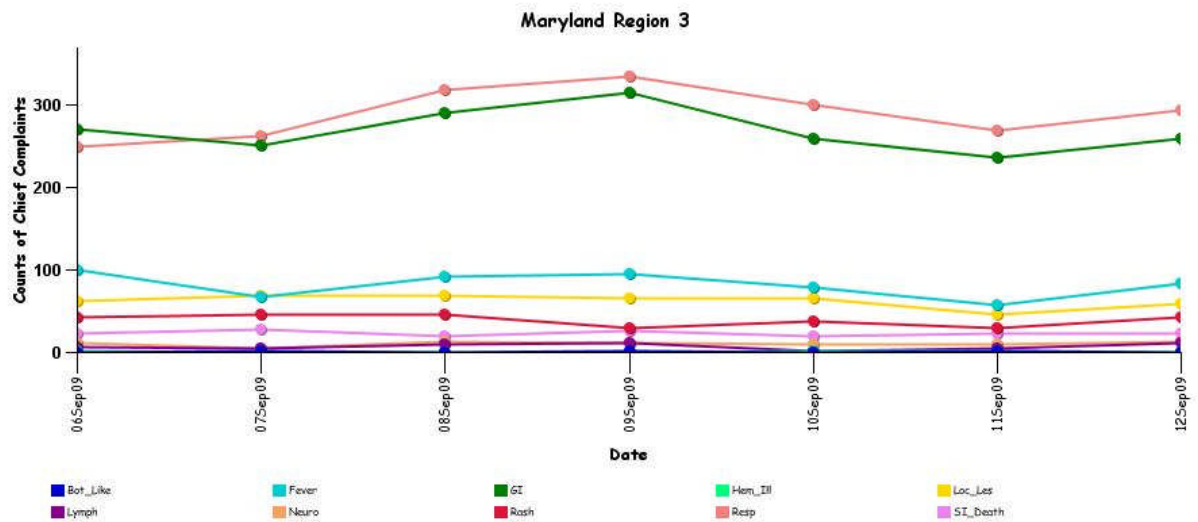


* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

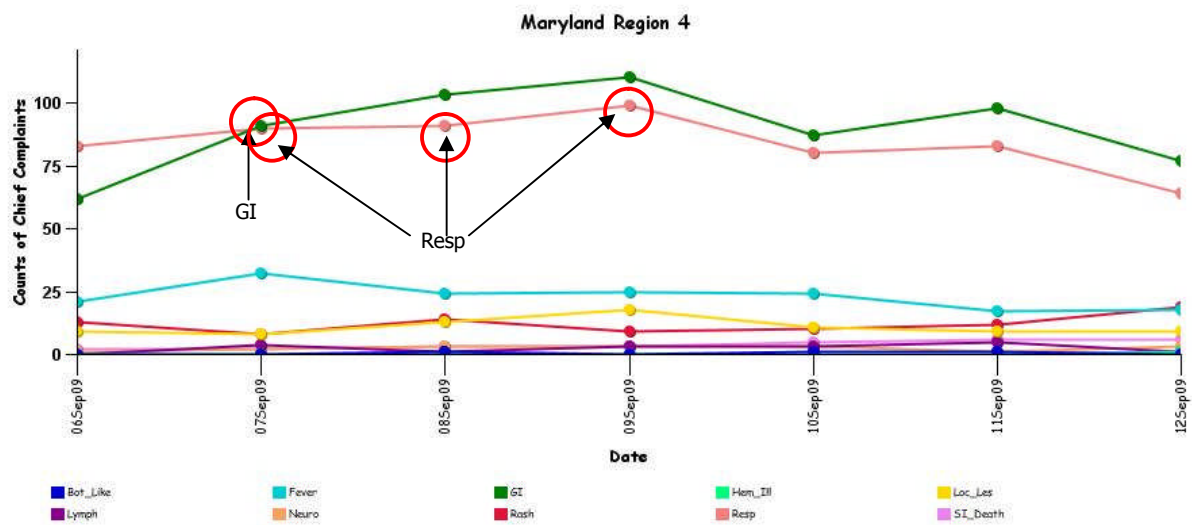
MARYLAND ESSENCE:



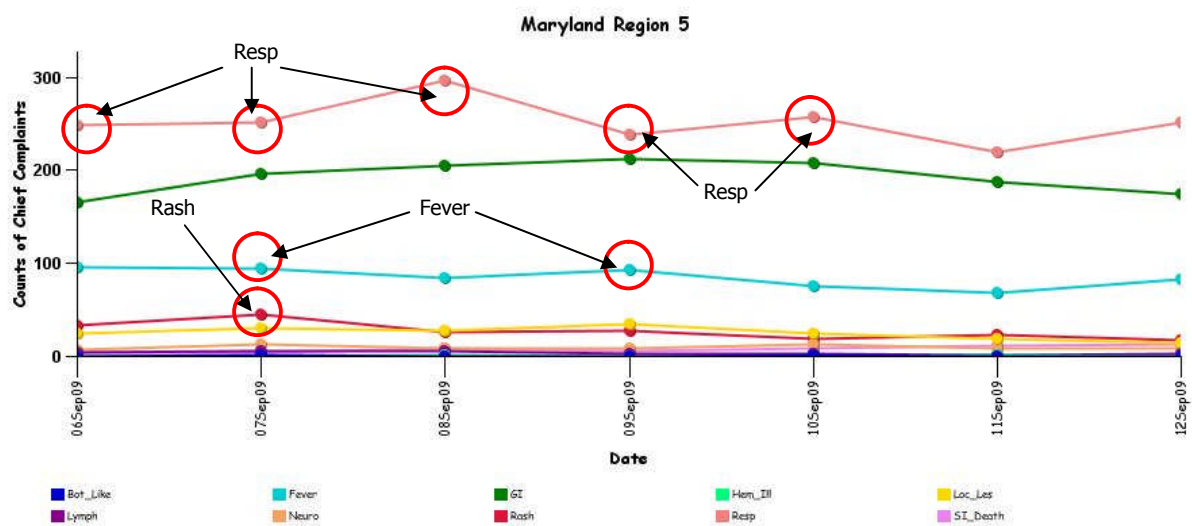
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE

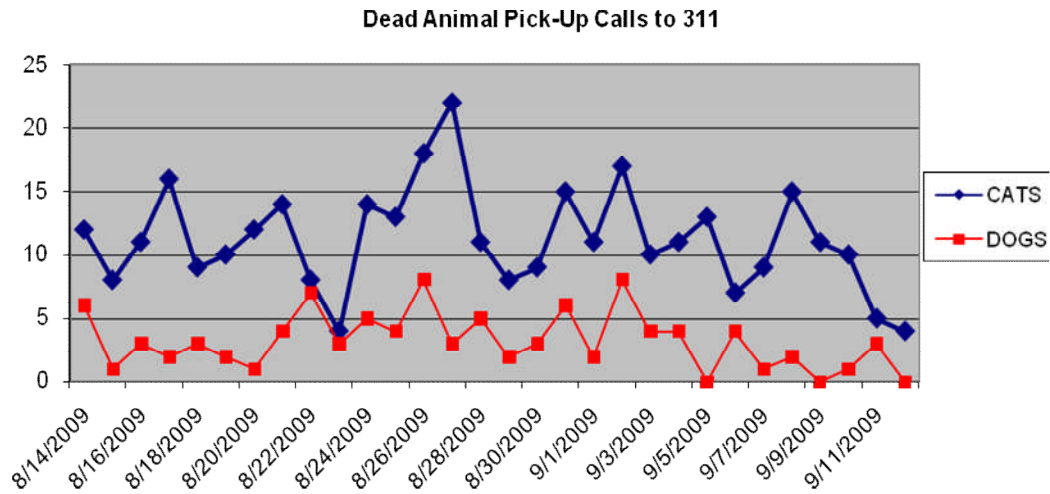


* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



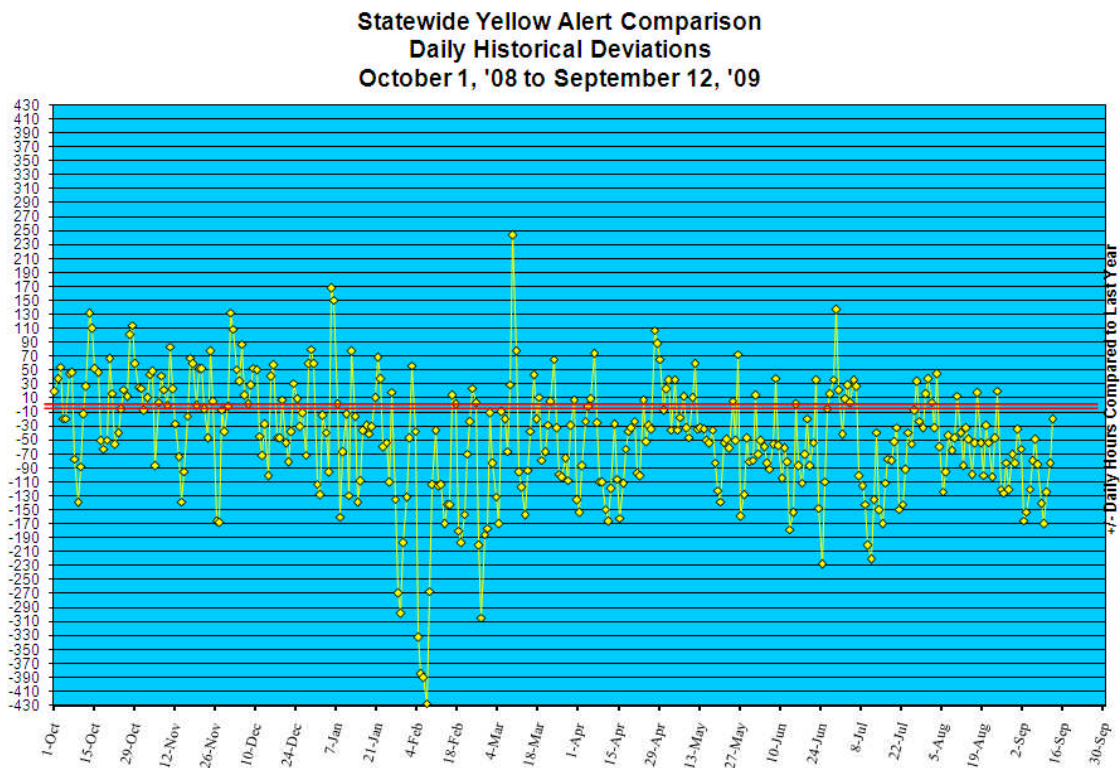
* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/08.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in August 2009 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (Sep 06- Sep 12, 2009):	18	0
Prior week (Aug 30- Sep 05, 2009):	27	0
Week#36, 2008 (Aug 31- Sep 06, 2008):	08	0

OUTBREAKS: 4 outbreaks were reported to DHMH during MMWR Week 36 (September 6- 12, 2009):

3 Respiratory illness outbreaks

2 outbreaks of ILI associated with Schools
1 outbreak of INFLUENZA associate with a School

1 other outbreak

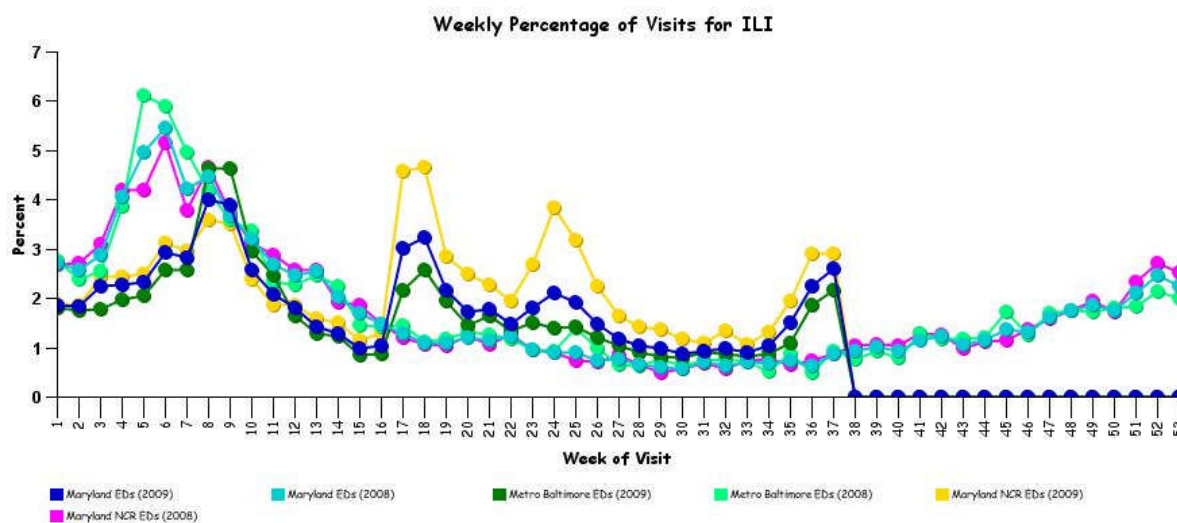
1 outbreak of CONJUNCTIVITIS associated with an Adult Daycare

MARYLAND INFLUENZA STATUS: Influenza activity in Maryland for Week 36 is WIDESPREAD.

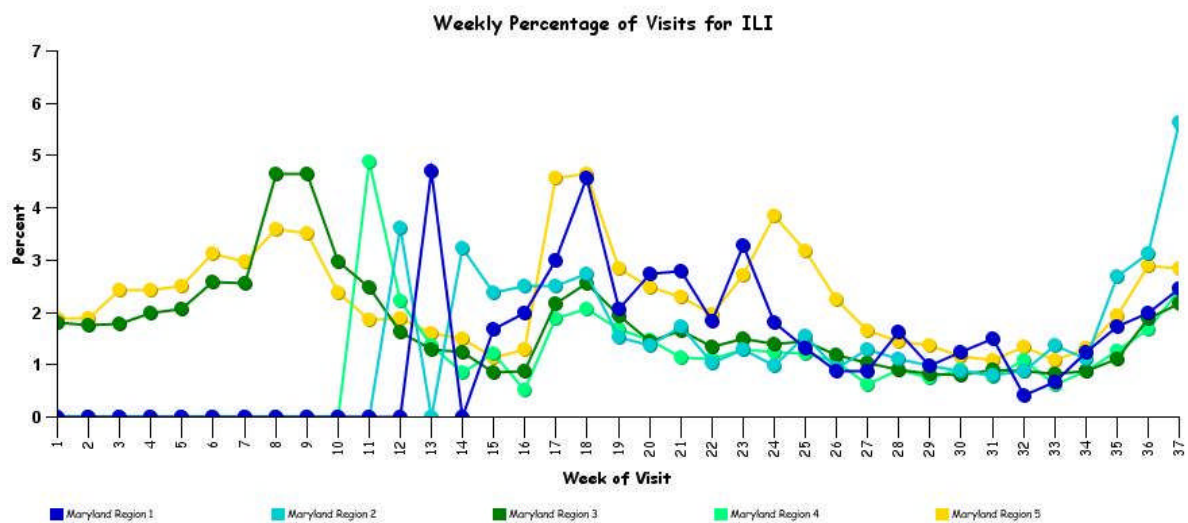
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



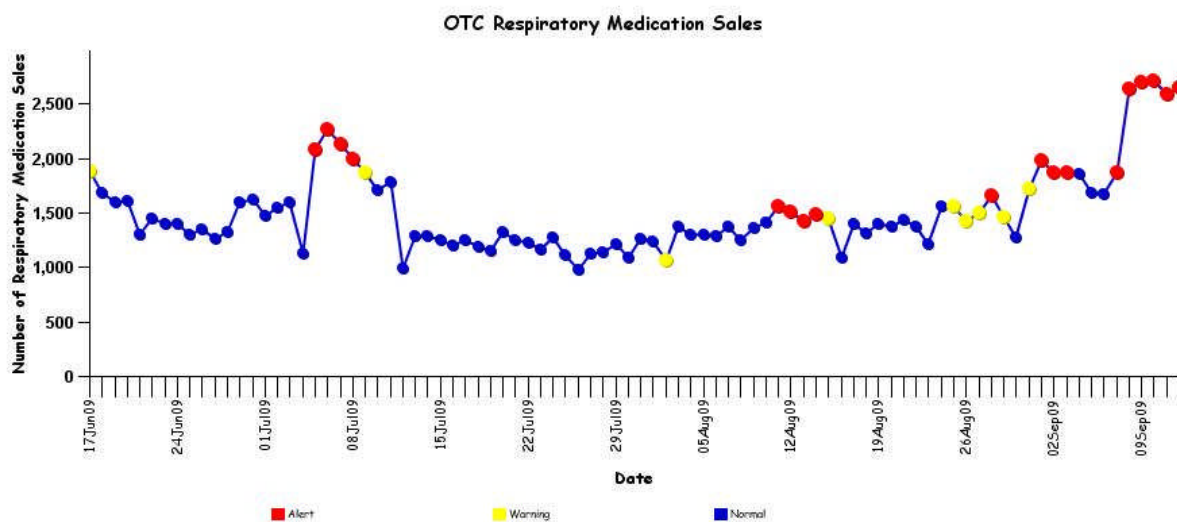
* Includes 2008 and 2009 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2009 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5
 2009 data for these regions are depicted separately to establish baselines, due to the addition of new hospitals in these regions.

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE:

WHO Pandemic Influenza Phase: Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

****More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at:**
[http://preparedness.dhmmh.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex\(Vers7.2\).pdf](http://preparedness.dhmmh.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex(Vers7.2).pdf)

AVIAN INFLUENZA-RELATED REPORTS:

WHO update: As of August 31, 2009, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 440, of which 262 have been fatal. Thus, the case fatality rate for human H5N1 is about 60%.

AVIAN INFLUENZA, ACTIVE DISEASE SURVEILLANCE (Bangladesh): 09 Sep 2009, Bangladesh is conducting active Highly Pathogenic Avian Influenza (HPAI) surveillance in 150 out of 487 sub-districts as part of an USAID funded FAO project. A total of 450 Community Animal Health Workers (CAHW), 50 Additional Veterinary Surgeons (AVS) and 150 Upazilla Livestock Officers (ULO) are using Short Message Service (SMS) gateway (i.e., method of sending and receiving SMS messages between computers and mobile phones) to collect data and report on disease and death in poultry. Since October 2008, 21 HPAI outbreaks out of a total of 35 have been detected through this active surveillance program. The SMS reporting structure is rather simple: at the end of the working day, each CAHW sends a SMS message with the total number of all investigated poultry (chickens, ducks and other birds) and their health status (the number of sick and dead birds) to the SMS gateway system. This data is used to; A) monitor trends in disease and mortality in poultry, and B) monitor who is working that day. Additionally, CAHWs send flash reports by SMS on suspected outbreaks according to a case definition. The system then automatically contacts the ULO in the same area by SMS, who initiates an investigation by sending an AVS or visits the suspect outbreaks him/herself. After the investigation, the ULOs and AVS send a SMS message to the gateway server to declare the suspect outbreak as negative or report that it may require further (diagnostic) tests. Initially a Gateway server receiving these messages was located at the Department of Livestock Services in Dhaka, the capital. Currently the system is Internet based. Specialized staff monitors the change in mortality and morbidity rates and perform spatial and temporal analysis against concurrent HPAI outbreaks and monitor the number of suspect cases and the results of the ULOs and AVS investigations. The result of the analysis is submitted to the Chief Veterinary Officer, used in workshops to sensitize staff and farmers, donor meetings as well as in periodic project reporting. This real-time reporting using SMS has been contributing to effective HPAI outbreak response and control. The key to the success may be its simple approach and clearly defined work-sharing by using familiar tools (mobile phones).

H1N1 INFLUENZA (Swine Flu):

INFLUENZA PANDEMIC (H1N1), WHO REPORT: 11 Sep 2009, In the temperate region of the southern hemisphere (represented by countries such as Chile, Argentina, Australia, New Zealand, and South Africa), influenza activity continues to decrease or return to baseline. Active transmission persists in tropical regions of the Americas and Asia. Many countries in Central America and the Caribbean continue to report declining activity for the 2nd week in a row. However, countries in the tropical region of South America (represented by countries such as Bolivia, Ecuador, and Venezuela) are reporting increasing levels of respiratory disease. In the tropical regions of Asia, respiratory disease activity remains geographically regional or widespread but the trend is generally increasing as noted in India, Bangladesh, and Cambodia. In the temperate regions of the Northern Hemisphere activity is variable. In the United States, regional increases in influenza activity are being reported, most notably in the south-eastern states. Most of Europe is reporting low or moderate respiratory diseases activity, but parts of Eastern Europe are beginning to report increases in activity. WHO Collaborating Centres and other laboratories continue to report sporadic isolates of oseltamivir-resistant influenza virus. 21 such virus isolates have now been described from around the world, all of which carry the same H275Y mutation that confers resistance to the antiviral oseltamivir but not to the antiviral zanamivir. Of these, 12 have been associated with post-exposure prophylaxis, 4 with long term oseltamivir treatment in patients with immunosuppression. Worldwide, more than 10 000 isolates of the pandemic (H1N1) 2009 virus have been tested and found to be sensitive to oseltamivir. WHO will continue to monitor the situation closely in collaboration with its partners, but is not changing its guidelines for use of antiviral drugs at this time. Pandemic (H1N1) 2009 influenza virus continues to be the predominant circulating virus of influenza, both in the northern and southern hemisphere. All pandemic H1N1 2009 influenza viruses analyzed to date have been antigenically and genetically similar to A/California/7/2009-like pandemic H1N1 2009 virus.

INFLUENZA PANDEMIC (H1N1), PORK CONSUMPTION (China): 07 Sep 2009, Nearly two-thirds of China's consumers stopped eating pork in the early stages of the H1N1 influenza outbreak this year, and more than 1 in 5 consumers in the world's largest pork market still believe that eating pork can result in catching the flu virus, according to a survey of 1200 Chinese consumers commissioned last month by the US Meat Export Federation (USMEF). Speaking to the Fifth International Meat

Secretariat (IMS) World Conference in Qingdao, China, on 3 Sep 2009 Joel Haggard, senior vice president Asia-Pacific for USMEF, told the more than 600 global pork industry executives in attendance that China, both the world's largest pork producer and consumer, may have been more affected by the H1N1 virus outbreak than previously suspected. "In the early stages of the outbreak, 64% of Chinese consumers refrained from pork consumption," said Haggard, citing research conducted 6-10 Aug 2009 by Sinotrace Marketing Research Company of 200 consumers in each of 6 Chinese cities: Beijing, Shanghai, Chongqing, Guangzhou, Nanjing, and Shenyang. Even now, months after the initial outbreak, 21.2% of those surveyed still believe that eating pork can lead to catching the H1N1 virus. Despite efforts by the Chinese government to educate consumers regarding the safety of pork, 54.7% of those who fear the connection between pork and the flu virus say that it is because the virus has been labeled "swine flu." "The research suggests that the initial Chinese consumer reaction to H1N1 was sharp, and that a significant number of consumers may still associate the virus with pork and hogs," said Haggard.

Resources:

<http://www.cdc.gov/h1n1flu/>

<http://www.dhmv.maryland.gov/swineflu/>

NATIONAL DISEASE REPORTS

EASTERN EQUINE ENCEPHALITIS, EQUINE (Maine): 11 Sep 2009, Maine's state veterinarian is describing an outbreak of eastern equine encephalitis (EEE) as "unprecedented." Don Hoening confirmed Tuesday 8 Sep 2009 that 5 additional cases are suspected in Maine 4 in horses and 1 in a llama. That's on top of 6 cases that were confirmed previously. With 9 confirmed cases of eastern equine encephalitis (EEE) affecting horses in Maine, the state health chief is warning Mainers to avoid mosquito bites that could give them the disease. In a briefing Thursday 10 Sep 2009, Dr Dora Anne Mills of Maine's Center for Disease Control and Prevention said people who live near bogs, swamps, and coastal marshes should be especially careful to avoid bites by mosquitoes, which carry the disease. There are no confirmed cases of humans being affected by the potentially fatal disease this year. Mills said she's asked schools to reschedule sports events and practices so they won't coincide with evening hours when mosquitoes are out. Mills says the state hasn't sprayed against mosquitoes carrying EEE because the area where they live is so widespread. EEE mainly affects horses, llamas, alpacas, and humans. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *non suspect case

EASTERN EQUINE ENCEPHALITIS, EQUINE (Virginia): 07 Sep 2009, Northern Virginia's 1st ever confirmed case of a rare mosquito-borne disease that is fatal to most horses is spreading concern among health officials who worry that the virus is somehow moving beyond its normal stamping grounds. Eastern equine encephalitis, a non-contagious virus spread by mosquitoes was diagnosed last month [August 2009] in a 28-year-old mare from Middleburg in eastern Loudoun County's vaunted horse country. The mare - which had been riddled with health problems, including kidney disease - was euthanized on 6 Aug 2009. Brain tissue samples sent to the National Veterinary Services Laboratories in Ames, Iowa were examined, and 3 weeks later, the lab confirmed the encephalitis diagnosis. "Frankly, no one expected for the test to come back positive. This is a very unusual case, and a lot of us have been saying to ourselves, 'Gee, what does this mean?'" said Elaine Lidholm, a spokeswoman for the Virginia Department of Agriculture and Consumer Services. "We don't know if it's an isolated case or there's more out there in the environment." What makes the case so unusual is that the horse had not traveled outside Loudoun County, its owners told state officials. The disease - which more commonly goes by the name "triple E" - largely has been concentrated in southwestern Virginia, especially the Tidewater region, where mosquitoes are plentiful. Virginia's agriculture department began tracking equine encephalitis cases in 2000. Since then, it has found 50 cases in horses, goats, emus and alpacas, none north of Madison, a small community between Culpeper and Shenandoah National Park, about 75 miles from Loudoun. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *non suspect case

INTERNATIONAL DISEASE REPORTS

ANTHRAX, HUMAN, BOVINE (Romania): 11 Sep 2009, Eight persons are under quarantine and a slaughterhouse has been temporary closed after a bovine was infected with anthrax in Nichiteni in Botosani county in eastern Romania. The animal's owner called in veterinarians after the animal got sick and died. The persons in contact with the anthrax-infected animal are under quarantine. Local authorities say all precautions have been taken so that this isolated case does not result in the spread of the disease. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, CAPRINE (Italy): 10 Sep 2009, In Benevento Province (Campania Region - South Italy) about 70 km from Naples on 25 Aug 2009 one goat died near the village of Bonea. The laboratory analysis confirmed *Bacillus anthracis*. The Anthrax Reference Institute of Foggia is working to determine the genotype. The epidemiological situation is not clear as the farmer declared that 11 goats had disappeared. Probably they died while grazing. The outbreak developed in a mountainous area and it is normally very difficult to find dead animals. An emergency vaccination of the susceptible animals that live in that area was begun immediately. Benevento Province is an enzootic area for anthrax. In the past several outbreaks have occurred. The genotype of *Bacillus anthracis* circulating in the Benevento Province is presently unknown. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, BOVINE (Australia): 08 Sep 2009, DPI [Victoria Department of Primary Industries] is urging extra vigilance by farmers after the 2nd anthrax case in a week ended up at a Stanhope knackery before it was diagnosed. DPI is concerned further properties could be at risk and people could also be at risk if infected carcasses are moved. DPI supervised the destruction of 7 carcasses at the Stanhope knackery on 4 Sep 2009 that had been in contact with the dairy cow that had been unwittingly brought in for processing. A new high-temperature incinerator, 1st trialed last year, was used to burn the carcasses. The department is emphasizing the importance of reporting sudden deaths either to a private vet or DPI. Producers who report suspected anthrax cases to DPI or a veterinarian and request an anthrax test on a carcass that has not been moved, will receive 1000 CAD [if anthrax is confirmed. DPI will also pay for vaccination costs on affected and neighboring properties. Vaccination subsidies are available for non-neighboring farmers. DPI acting senior veterinary officer David Champness said in the latest case, a dairy cow, died on a property without any anthrax history in the Tatura-Stanhope area after being moved about 8 days earlier from a farm that was previously affected by anthrax. Dr Champness said anthrax had an incubation period of between 4 and 10 days. Cattle on both properties and neighboring properties have been vaccinated. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA (India): 07 Sep 2009, The spate of seasonal diseases in twin cities took another turn, with authorities on 6 Sep 2009 confirming the presence of chikungunya in twin cities of Hyderabad. The Nallakunta Fever Hospital had received a patient with chikungunya like symptoms from Amberpet. Laboratory tests revealed that the patient has tested positive for chikungunya. The district authorities informed that medical teams are fanning out the Amberpet area to find mosquito breeding grounds, as chikungunya, a vector-borne ailment, spreads by the bite of the Aedes mosquito. "Our surveillance has improved because now we are coordinating with private hospitals. Earlier, only Fever Hospital cases used to get reported. Now, private hospitals are reporting cases directly to us," says District Medical and Health Officer Ch Jaya Kumari. (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmdh.maryland.gov/>

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

Update: Influenza Activity - United States, April-August 2009

MMWR Early Release: September 10, 2009 / 58(Early Release); 1-4. This report provides an overview of influenza activity during April-August 2009. (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm58e0910a1.htm>)

Oseltamivir-Resistant 2009 Pandemic Influenza A (H1N1) Virus Infection in Two Summer Campers Receiving Prophylaxis - North Carolina, 2009

MMWR Weekly: September 11, 2009 / 58(35); 969-972. This is the first report of oseltamivir resistance in pandemic H1N1 cases with an epidemiologic link. (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5835a1.htm>)

Four-Fifths of Businesses Foresee Severe Problems Maintaining Operations If Significant H1N1 Flu Outbreak

Press Release, September 09, 2009, Harvard School of Public Health. This survey is part of an ongoing series about the country's response to the H1N1 flu outbreak undertaken by the Harvard Opinion Research Program at HSPH. This was a national survey of businesses that looks at their preparations for a possible widespread H1N1 outbreak. (<http://www.hsph.harvard.edu/news/press-releases/2009-releases/businesses-problems-maintaining-operations-significant-h1n1-flu-outbreak.html>)

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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